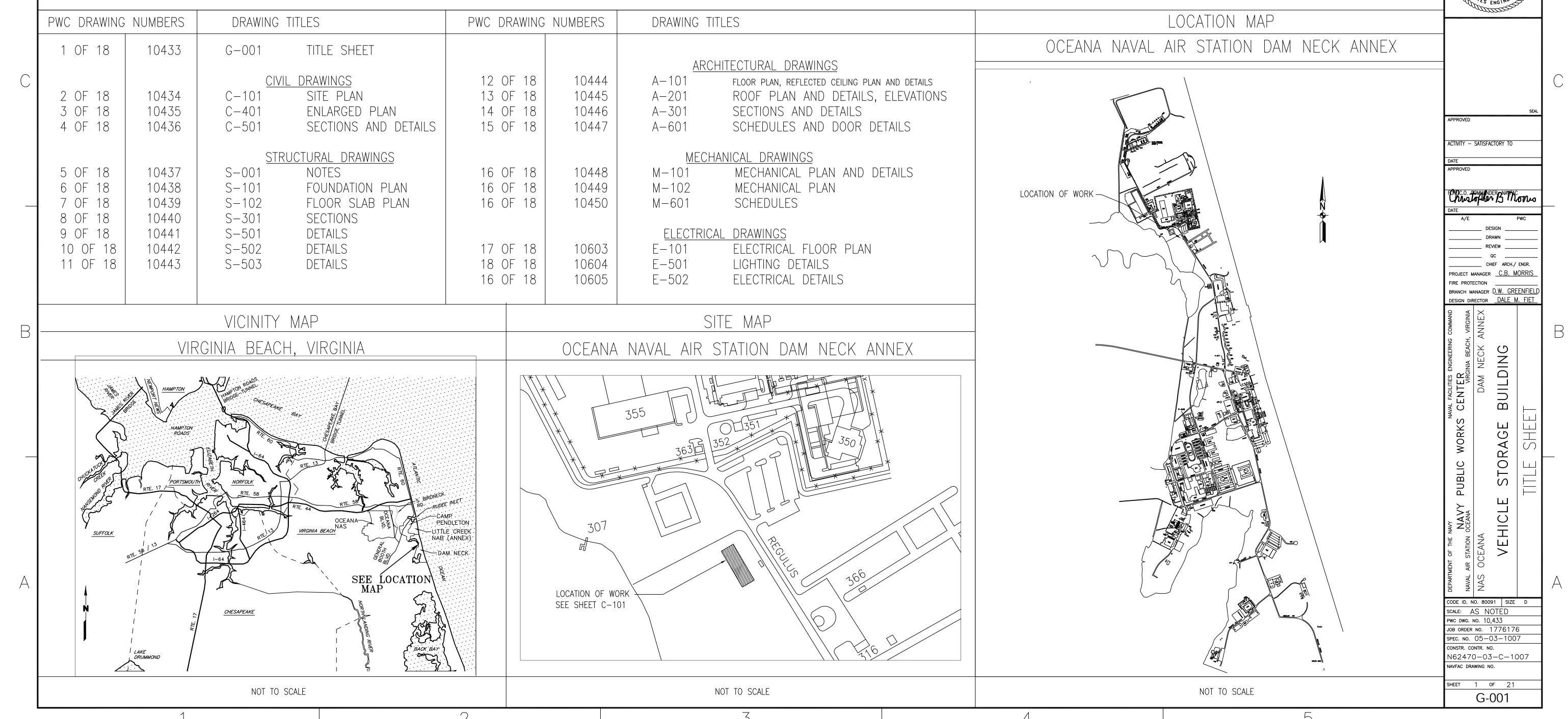
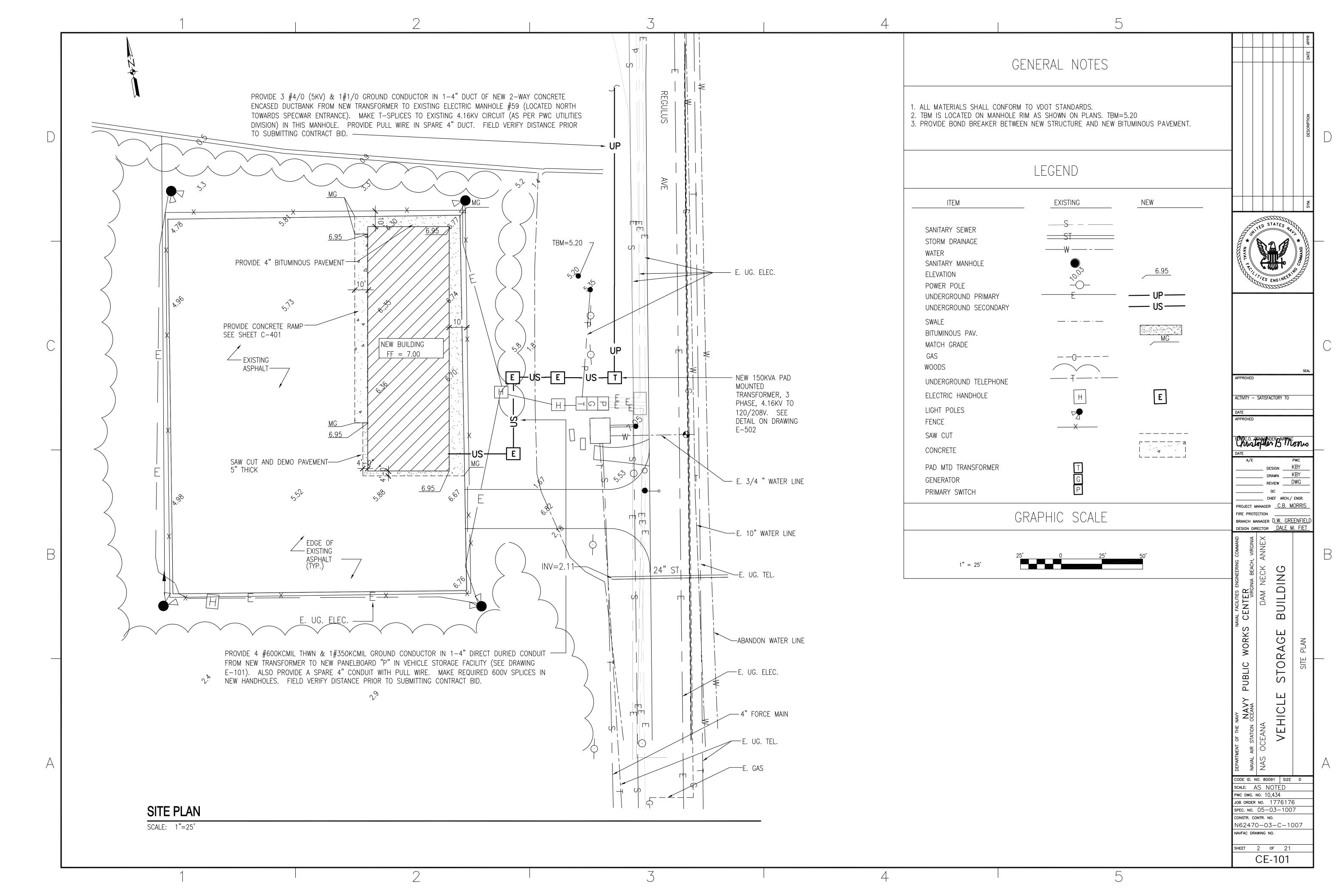
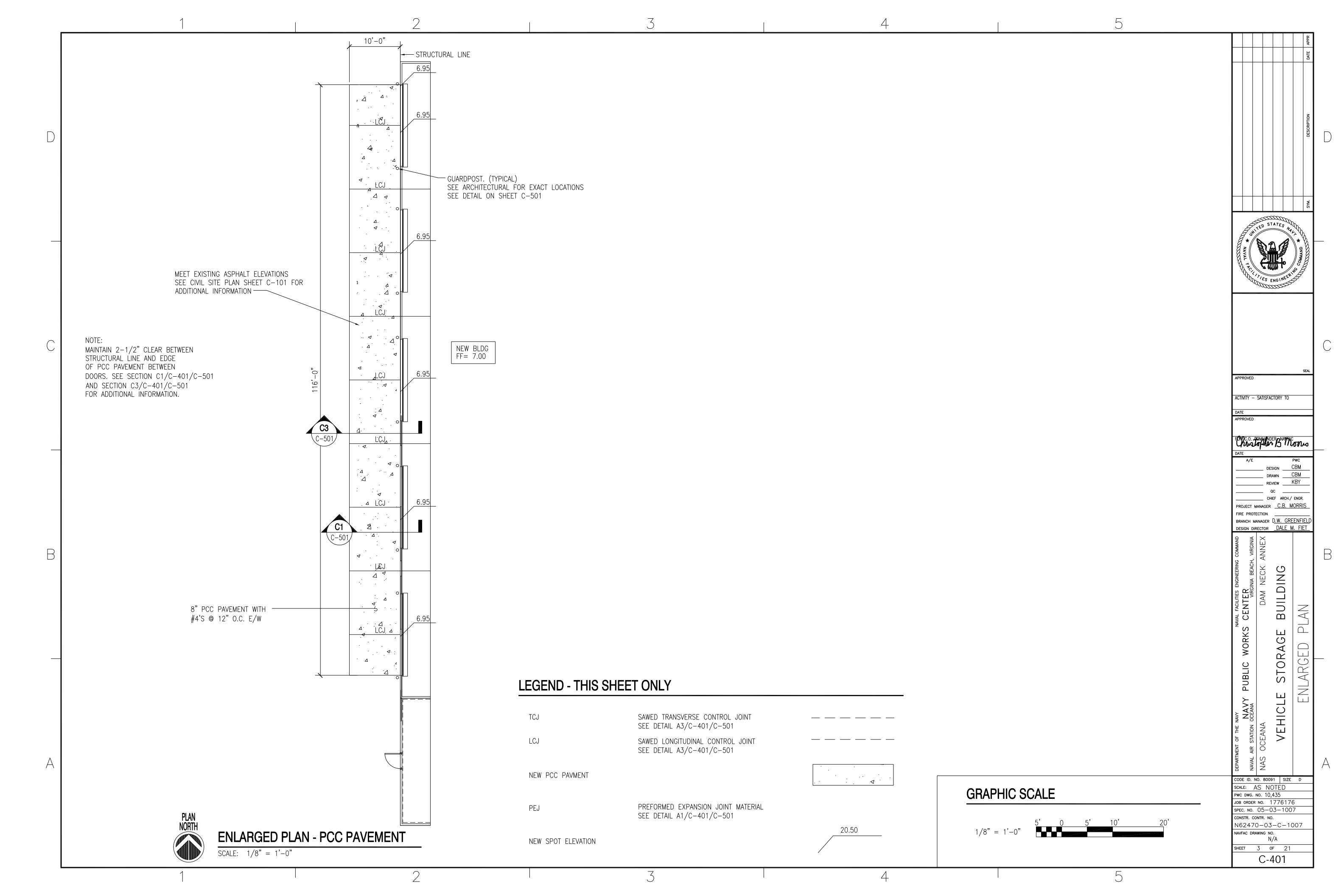
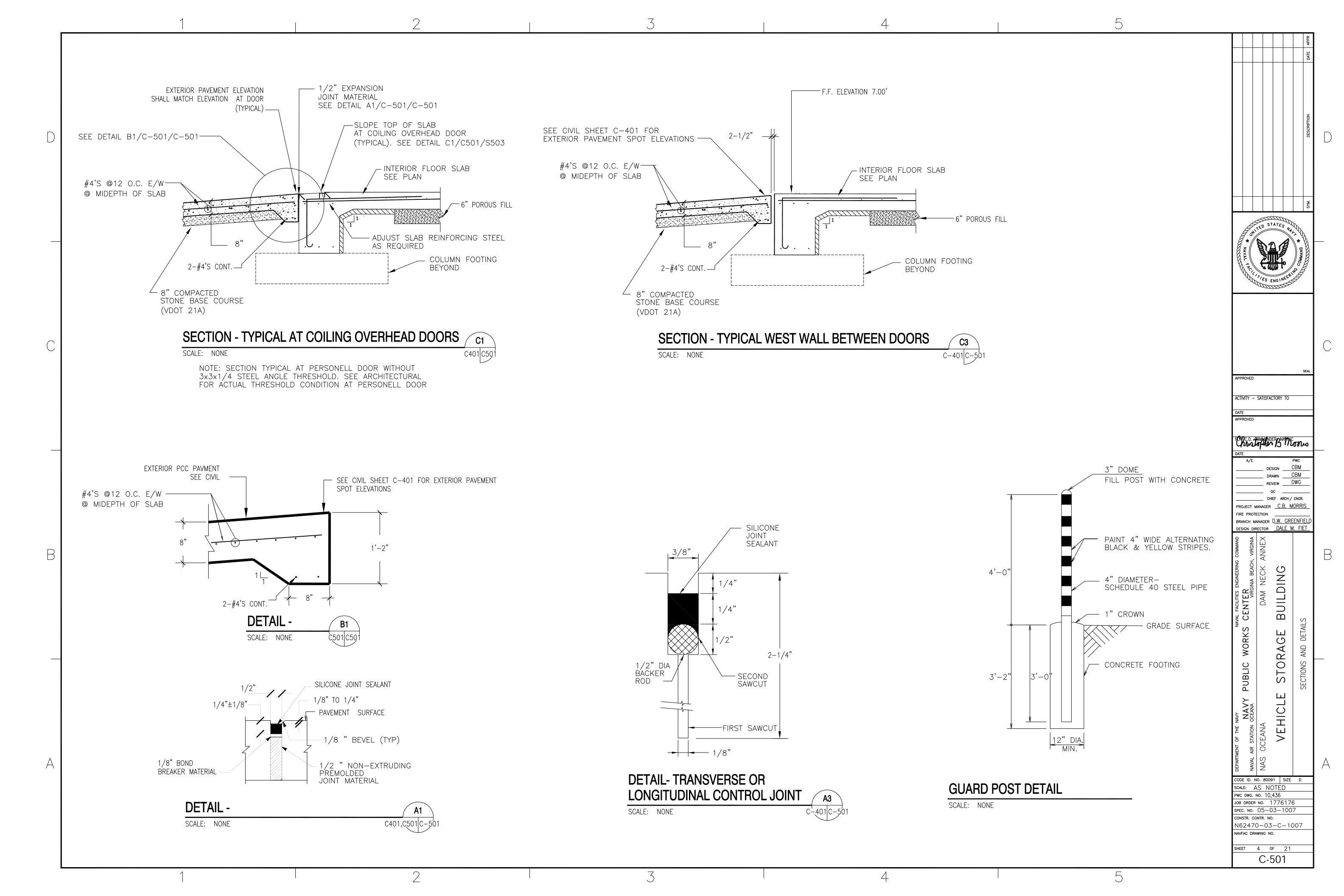
# VEHICLE STORAGE BUILDING NAVAL AIR STATION OCEANA DAM NECK ANNEX VIRGINIA BEACH, VIRGINIA









- 1) THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, AND ADDITIONAL ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.
- 2) THE CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL PERMANENT SUPPORTS AND LATERAL BRACING ARE IN PLACE.
- 3) DESIGN LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:

FIRST FLOOR MEZZANINE ROOF

WIND

200 PSF OR 32 kip AXLE LOAD

200 PSF 20 PSF 114 MPH

- 4) DETAILS ENTITLED OR NOTED AS "TYPICAL" SHALL APPLY NOT ONLY WHERE SPECIFICALLY INDICATED OR REFERENCED, BUT ALSO IN ALL OTHER CASES WHERE THE NATURE OF THE CONSTRUCTION REQUIRES THEIR USE. APPLICATION OF TYPICAL DETAILS SHALL BE DETERMINED FROM DESCRIPTIVE TITLES OR FROM THE SIMILARITY OF A CONSTRUCTION CONDITION TO ANOTHER CONDITION WHERE THE DETAIL IS SPECIFICALLY INDICATED OR REFERENCED.
- 5) DISCREPANCIES IN DIMENSIONS BETWEEN DIFFERENT DRAWINGS SHALL BE REPORTED TO THE CONTRACTING OFFICER FOR CLARIFICATION PRIOR TO BEGINNING CONSTRUCTION IN THE AREAS THAT ARE INVOLVED WITH THE DISCREPANT DIMENSIONS.
- 6) ALL WELDING SHALL CONFORM TO AWS D1.1

### FOUNDATION NOTES:

- 1) PRIOR TO CONSTRUCTION, ALL VEGETATION, TOPSOIL, BITUMINOUS PAVEMENT, AND OTHER DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE BUILDING AREA. SEE FOUNDATION PLAN SHEET S-101 AND CIVIL SHEETS FOR EXTENT OF THE BUILDING LIMITS.
- 2) PROVIDE A LAYER OF POROUS FILL WITH 6 MIL POLYETHYLENE VAPOR BARRIER BENEATH FLOOR SLAB. SEE SHEET S-102 FOR ADDITIONAL INFORMATION.
- 3) ACTUAL FINISHED FIRST FLOOR ELEVATION IS 7.00'. REFERENCE FINISHED FIRST FLOOR = 0.00'.
- 4) UNLESS OTHERWISE INDICATED, TOP OF CONCRETE FLOOR SLAB SHALL BE AT REFERENCED FINISHED FLOOR ELEVATION.
- 5) FLOOR SLAB IN WAREHOUSE PORTION OF BUILDING SHALL BE SEALED WITH A MAGNESIUM FLUOSILICATE SEALER/HARDNER. SEE SPECIFICATION SECTION 03300 "CAST IN PLACE CONCRETE".
- 6) NO UNBALANCED BACKFILLING SHALL BE DONE AGAINST MASONRY OR CONCRETE WALLS OR BEAMS UNLESS WALLS OR BEAMS ARE SECURELY BRACED AGAINST OVERTURNING, EITHER BY TEMPORARY CONSTRUCTION BRACING OR BY PERMANENT CONSTRUCTION.
- 7) ALLOWABLE SOIL BEARING CAPACITY FOR SHALLOW FOUNDATIONS SHALL BE 1500 PSF.
- 8) EXCAVATE MATERIAL AS REQUIRED TO PLACE FLOOR SLABS AT THE PROPER ELEVATIONS. SUBGRADE MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D 698.
- 9) ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL CAPABLE OF SUPPORTING A DESIGN BEARING PRESSURE OF 1500 PSF. ANY UNUSUAL SOIL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER.
- 10) SUBMIT CONCRETE PLACEMENT PLAN TO CONTRACTING OFFICER FOR APPROVAL PRIOR TO PLACEMENT OF SLAB ON GRADE OR FOOTINGS. AS A MINIMUM THE PLACEMENT PLAN SHALL SHOW THE SEQUENCE OF CONCRETE PLACEMENT, FINISHING AND CURING METHODS, AND THE LOCATION OF ALL CONTROL AND CONSTRUCTION JOINTS.

(CONTINUED)

NOTES (CONTINUED)

### CAST IN PLACE NOTES:

- 1) ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. (ACI 318-89)
- 2) CONCRETE SHALL BE NORMAL WEIGHT AND SHALL OBTAIN A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
- 3) REINFORCING MATERIALS SHALL BE AS FOLLOWS:
- A) REINFORCING BARS ASTM A 615, GRADE 60, DEFORMED.

  B) WELDED WIRE FABRIC ASTM A 185, WELDED STEEL WIRE FABRIC. PROVIDE IN FLAT SHEETS, ROLL TYPE NOT ACCEPTABLE. SHEETS SHALL BE LAPPED 9" AT SPLICES.
- 4) ALL REINFORCING STEEL AND EMBEDDED ITEMS SUCH AS ANCHOR BOLTS AND WELD PLATES SHALL BE ACCURATELY PLACED IN POSITIONS SHOWN AND ADEQUATELY TIED AND SUPPORTED BEFORE CONCRETE IS PLACED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT.
- 5) NO CONCRETE SHALL BE PLACED UNTIL ALL EMBEDDED WORK HAS BEEN INSPECTED BY THE CONTRACTING OFFICER.
- 6) MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE AS DETAILED ON THE DRAWINGS. WHERE COVER IS NOT DIMENSIONED USE THE SAME AS DIMENSIONED FOR SIMILAR ITEMS. WHERE THERE ARE NO SIMILAR ITEMS ACI 318-89 SHALL GOVERN.
- 7) ALL CONTINUOUS REINFORCING SHALL BE LAPPED 48x BAR DIAMETER AT SPLICES UNLESS OTHERWISE NOTED.
- 8) SLEEVES, PIPES, OR CONDUITS OF ALUMINUM SHALL NOT BE EMBEDDED IN THE STRUCTURAL WORK UNLESS EFFECTIVELY COATED OR COVERED TO PREVENT ALUMINUM—CONCRETE REACTION OR ELECTROLYTIC ACTION BETWEEN ALUMINUM AND STEEL.
- 9) COMPACT THE FINISHED BOTTOM SURFACE OF FOOTINGS PRIOR TO PLACING REINFORCEMENT.
- 10) WET (NOT FLOOD) THE FORMS, REINFORCEMENT AND BOTTOM OF ALL FOOTING EXCAVATIONS IMMEDIATELY BEFORE PLACING CONCRETE IN THE FORMS.
- 11) SLAB ON GRADE SHALL HAVE A TROWELLED FINISH.
- 12) CONTROL JOINTS SHALL BE SAWN AS SOON AS CONCRETE HAS SET ENOUGH TO SUPPORT CONSTRUCTION EQUIPMENT. MAXIMUM OF 24 HOURS AFTER PLACEMENT.

### **CONCRETE MASONRY NOTES:**

- 1) CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C 90, TYPE I AND BE MADE WITH LIGHTWEIGHT AGGREGATE. THE COMPRESSIVE STRENGTH OF MASONRY F'M, EXPRESSED AS FORCE PER UNIT OF NET CROSS—SECTIONAL AREA, SHALL BE 1500 PSI AT 28 DAYS.
- 2) REINFORCING STEEL SHALL COMPLY WITH ASTM A 615, GRADE 60. SHOP FABRICATE REINFORCING BARS WHICH ARE SHOWN TO BE BENT OR HOOKED.
- 3) GROUT SHALL COMPLY WITH ASTM C 476, AND SHALL BE PROPORTIONED TO OBTAIN A 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI.
- 4) MORTAR SHALL COMPLY WITH ASTM C 270, TYPE S OR M. AGGREGATE FOR MORTAR SHALL COMPLY WITH ASTM C 144. AGGREGATE FAILING TO COMPLY WITH ASTM C 144 GRADATION REQUIREMENTS MAY BE USED PROVIDED THE MORTAR CAN BE PREPARED TO COMPLY WITH THE AGGREGATE RATIO, WATER RETENTION, AND COMPRESSIVE STRENGTH REQUIREMENTS OF THE PROPERTY SPECIFICATIONS OF ASTM C 270.
- 5) PROVIDE VERTICAL REINFORCING BARS OF THE GIVEN SIZE AND SPACING SHOWN. LAP ALL REINFORCING 48x BAR DIAMETERS AT ALL SPLICES.
- 6) PROVIDE VERTICAL REINFORCING BARS EACH SIDE OF ALL OPENINGS, CONTROL JOINTS, AND AT CORNERS, AND INTERSECTIONS OF ALL MASONRY WALLS. SEE ARCHITECHTURAL SHEETS FOR LOCATION OF MASONRY CONTROL JOINTS. SEE TYPICAL DETAILS SHEET S-501.
- 7) PROVIDE REBAR DOWELS OF THE SAME SIZE AND SPACING AS VERTICAL REINFORCING FROM FOUNDATION. DOWELS SHALL HAVE STANDARD A.C.I HOOKS.

(CONTINUED)

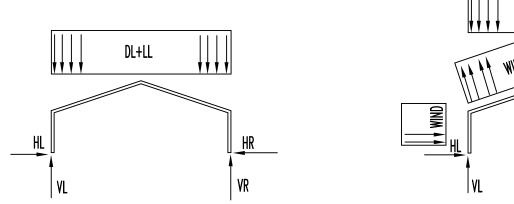
### NOTES (CONTINUED)

- 8) PROVIDE HORIZONTAL BOND BEAMS WITH CONTINUOUS REINFORCING AS SHOWN IN THE SECTIONS AND DETAILS AND ALONG THE TOP OF ALL WALLS. DISCONTINUE ALL HORIZONTAL REINFORCING AT CONTROL JOINTS. INTERMEDIATE BOND BEAMS SHALL BE PROVIDED AS INDICATED.
- 9) PROVIDE STANDARD 9 GAGE LADDER TYPE HORIZONTAL JOINT REINFORCING IN CMU WALLS AT 16" O.C. AND IN TWO JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS, EXTENDING A MINIMUM OF 2 FEET BEYOND THE JAMB ON EACH SIDE OF THE OPENING, EXCEPT AT CONTROL JOINTS.
- 10) ALL CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO THE PROVISION OF THE NCMA "SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF LOAD BEARING CONCRETE MASONRY. (FM =1500 PSI.)
- 11) PLACE REINFORCING IN BLOCK CELLS AS SHOWN AND TIE IN PLACE AT INTERVALS OF 160 BAR DIAMETERS MAXIMUM. PROVIDE BAR LAP LENGTHS OF 40 BAR DIAMETERS.
- 12) ALL WALLS SHALL BE LAID IN A RUNNING BOND.

### PRE-ENGINEERED METAL BUILDING

- 1) LATERAL DRIFT SHALL BE LIMITED TO EH/600 WHERE "EH" IS BUILDING EAVE HEIGHT IN INCHES.
- 2) METAL BUILDING MANUFACTURER SHALL BE RESPONSIBLE FOR ANY ADDITIONAL FRAMING TO SUPPORT COILING OVERHEAD DOORS, ENTRY DOORS. WINDOWS OR LOUVERS.
- 3) SHOP DRAWINGS FOR METAL BUILDING AND ANCHOR PLAN SHALL BE APPROVED PRIOR TO FOUNDATION CONSTRUCTION. DO NOT PLACE CONCRETE UNTIL SHOP DRAWINGS FOR BUILDING HAVE BEEN APPROVED BY CODE 460 PWC NORFOLK OCEANA SITE 433-3484. SEE SHOP DRAWINGS FOR EXACT ANCHOR BOLT LAYOUT AND FRAMING.
- 4) BUILDING MANUFACTURER SHALL PROVIDE ANCHOR BOLTS AND BASE PLATES.

### PRE-ENGINEERED METAL BUILDING FRAME REACTIONS



LOAD CASE

DEAD LOAD + LIVE LOAD

DEAD LOAD + WIND LOAD

₹		HR E		
N	MAXIMUM	FRAME RE	ACTIONS	
	HL	٧L	HR	VR

-10.77 | -19.66 | 1.88

14.00 | 4.90 | 14.00

-11.15

### RIGID FRAME AND PRE-ENGINEERED BUILDING NOTES:

1) FOUNDATION HAS BEEN DESIGNED FOR REACTIONS INDICATED. SUBMIT REACTIONS TO PWC CODE 465 FOR APPROVAL.

4.90

- 2) POSITIVE REACTIONS ACT IN THE DIRECTIONS SHOWN ON THE LOADING DIAGRAMS.
- 3) FRAMES, PURLINS, GIRTS, SIDING, AND FASTENERS SHALL BE DESIGNED FOR WIND LOADS ACTING EITHER IN OR OUT IN ACCORDANCE WITH ASCE 7-95, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES." BASIC WIND SPEED, V=120 M.P.H., IMPORTANCE FACTOR, I=1.00,EXPOSURE D.
- 4) FRAMES PURLINS, ROOFING AND CONNECTIONS SHALL BE DESIGNED TO CARRY A ROOF LIVE LOAD OF 20 P.S.F. AND A COLLATERAL LOAD OF 10 P.S.F. IN ADDITION TO ALL DEAD LOADS. ANCHOR BOLTS SHALL BE 3/4" ASTM A-307 (MINIMUM)
- 5) ANCHOR BOLT SIZE AND LOCATION FOR THE BUILDING SHALL BE SET BY PRE-ENGINEERED BUILDING MANUFACTURER. THE CONTRACTOR SHALL COORDINATE ANCHOR BOLT LAYOUT AND DESIGN WITH METAL BUILDING SUPPLIER BEFORE CONSTRUCTION BEGINS. (SEE SPECIFICATIONS)
- 6) ANCHOR BOLT SIZE AND EMBEDMENT LENGTHS SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER AND SUBMITTED ALONG WITH THE PRE-ENGINEERED METAL BUILDING SUBMITTAL TO THE CONTRACTING OFFICER FOR APPROVAL. ANCHOR BOLTS SHALL AS A MINIMUM BE 3/4" DIA. WITH AN EMBEDMENT LENGTH AS INDICATED
- 7) CONTRACTOR SHALL COORDINATE ALL EQUIPMENT TO BE SUPPORTED FROM THE STRUCTURE WITH METAL BUILDING MANUFACTURER BEFORE CONSTRUCTION BEGINS.
- 8) CONTRACTOR SHALL COORDINATE ALL OPENING SIZES AND LOCATION IN METAL BUILDING "SKIN" (WALLS AND ROOF) WITH BUILDING MANUFACTURER BEFORE OPENINGS ARE CUT.

SYM. DESCRIPTION DATE



SEAL

ACTIVITY – SATISFACTORY TO

DATE
APPROVED

DATE

A/E PWC

DESIGN CBM

DRAWN CBM

REVIEW DWG

QC

CHIEF ARCH./ ENGR.

CHIEF ARCH./ ENGR.

PROJECT MANAGER C.B. MORRIS

FIRE PROTECTION

BRANCH MANAGER D.W. GREENFIELD

DESIGN DIRECTOR DALE M. FIET

MORKS CENTER
VIRGINIA BEACH, VIR
DAM NECK ANI
AGE BUILDING

NAVY PUBLIC WORKS C SCEANA HICLE STORAGE E

DEPARTMENT OF THE NAWY

NAVAL AIR STATION OCE

SCALE: AS NOTED

PWC DWG. NO. 10,437

JOB ORDER NO. 1776176

SPEC. NO. 05-03-1007

CONSTR. CONTR. NO.

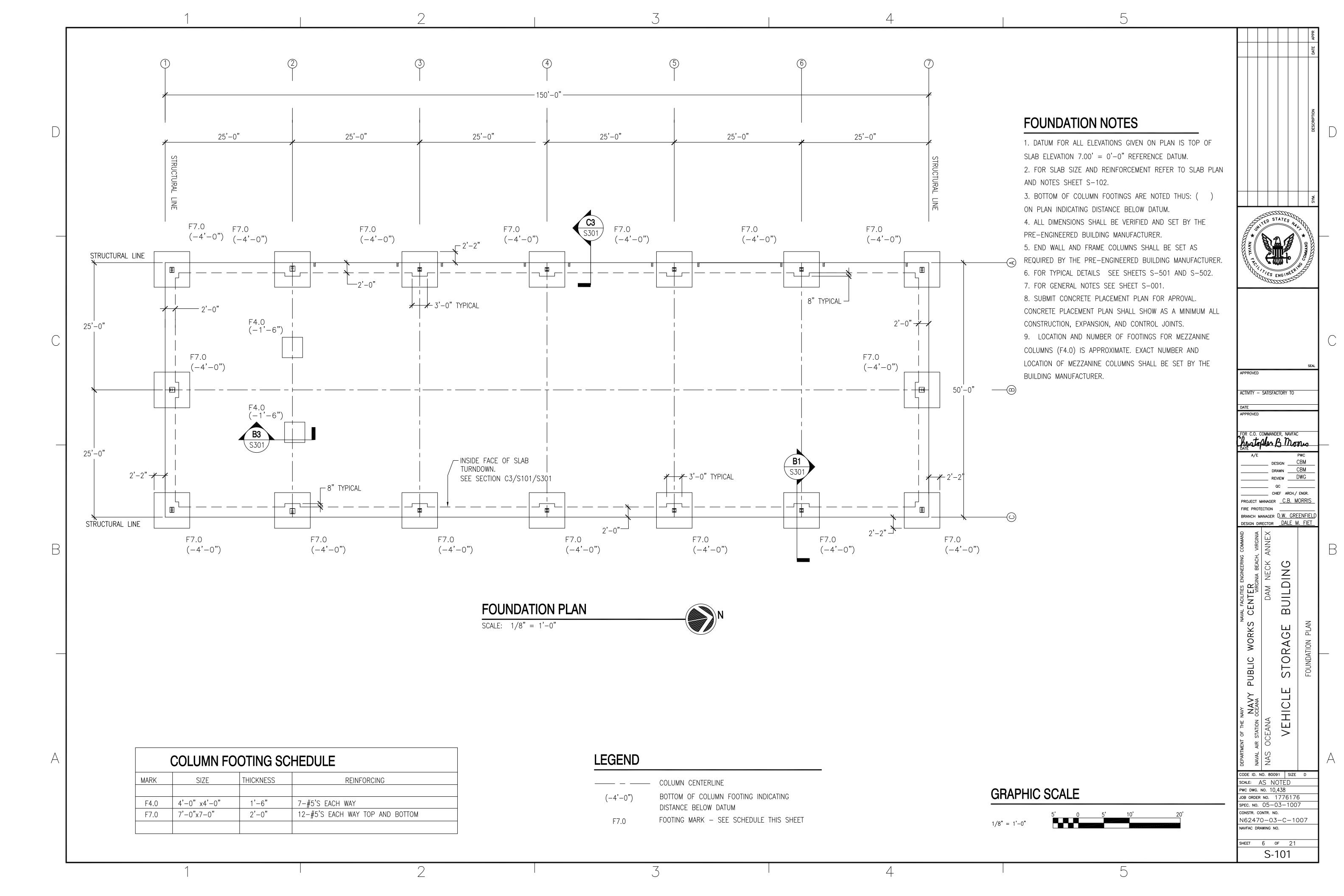
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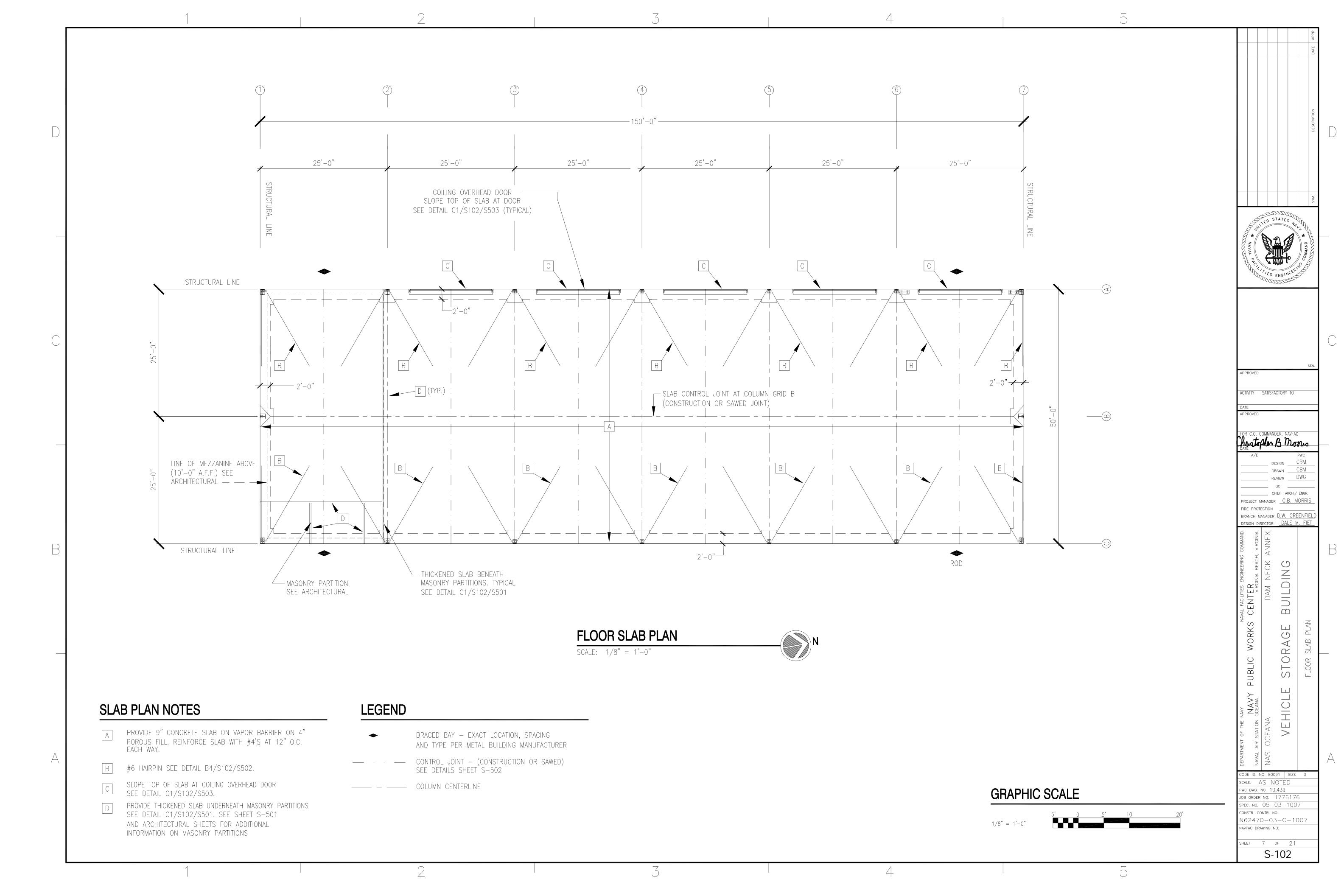
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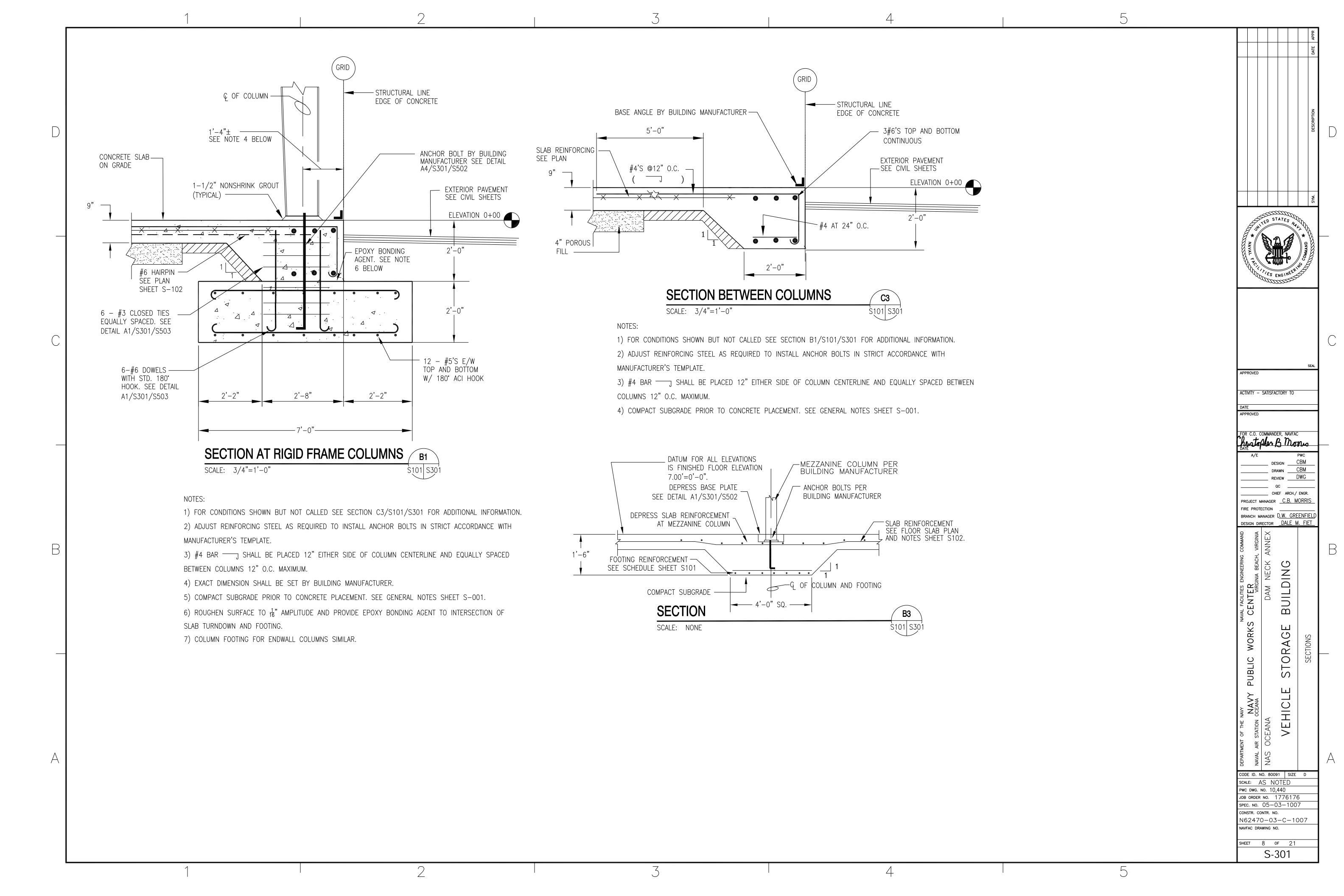
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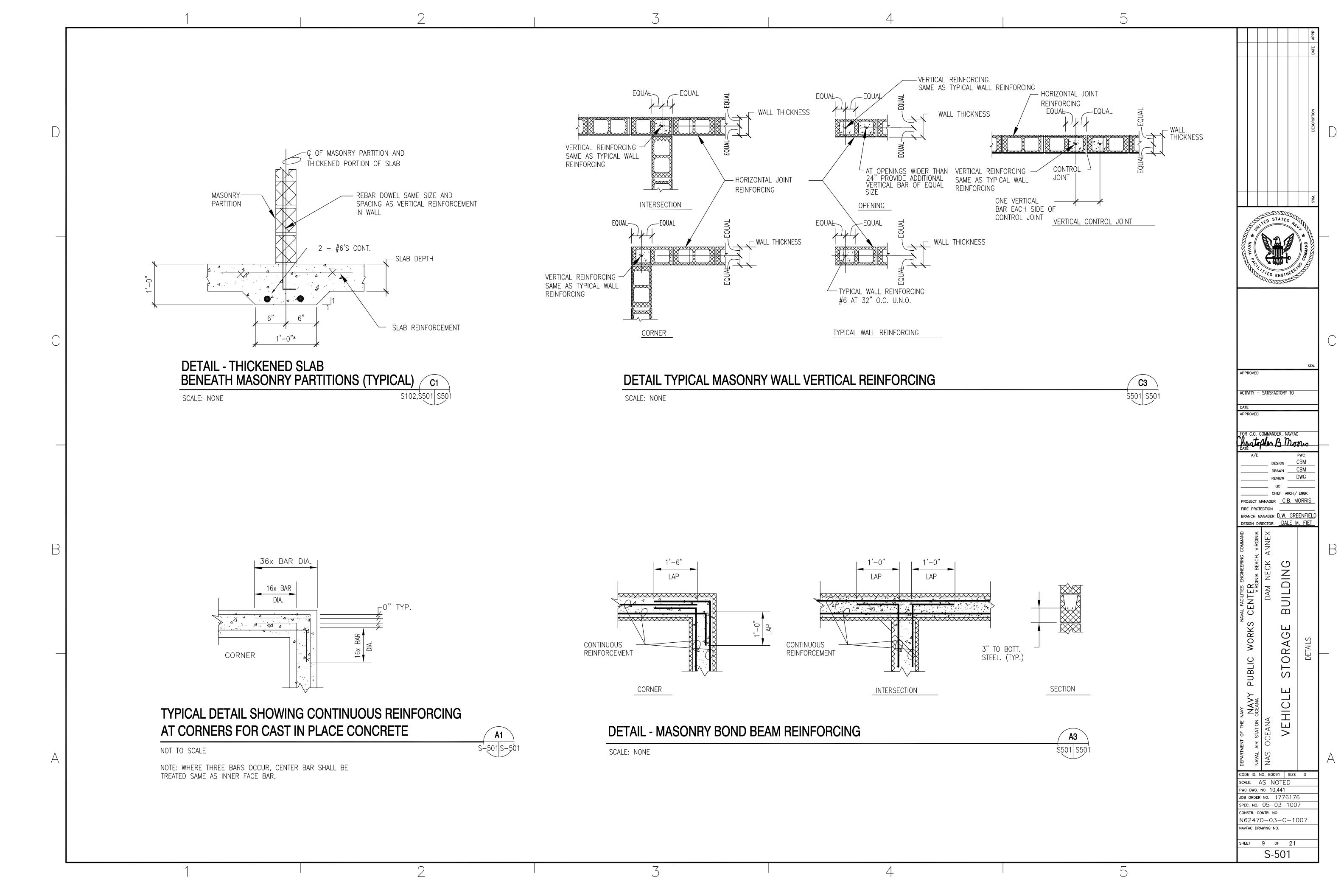
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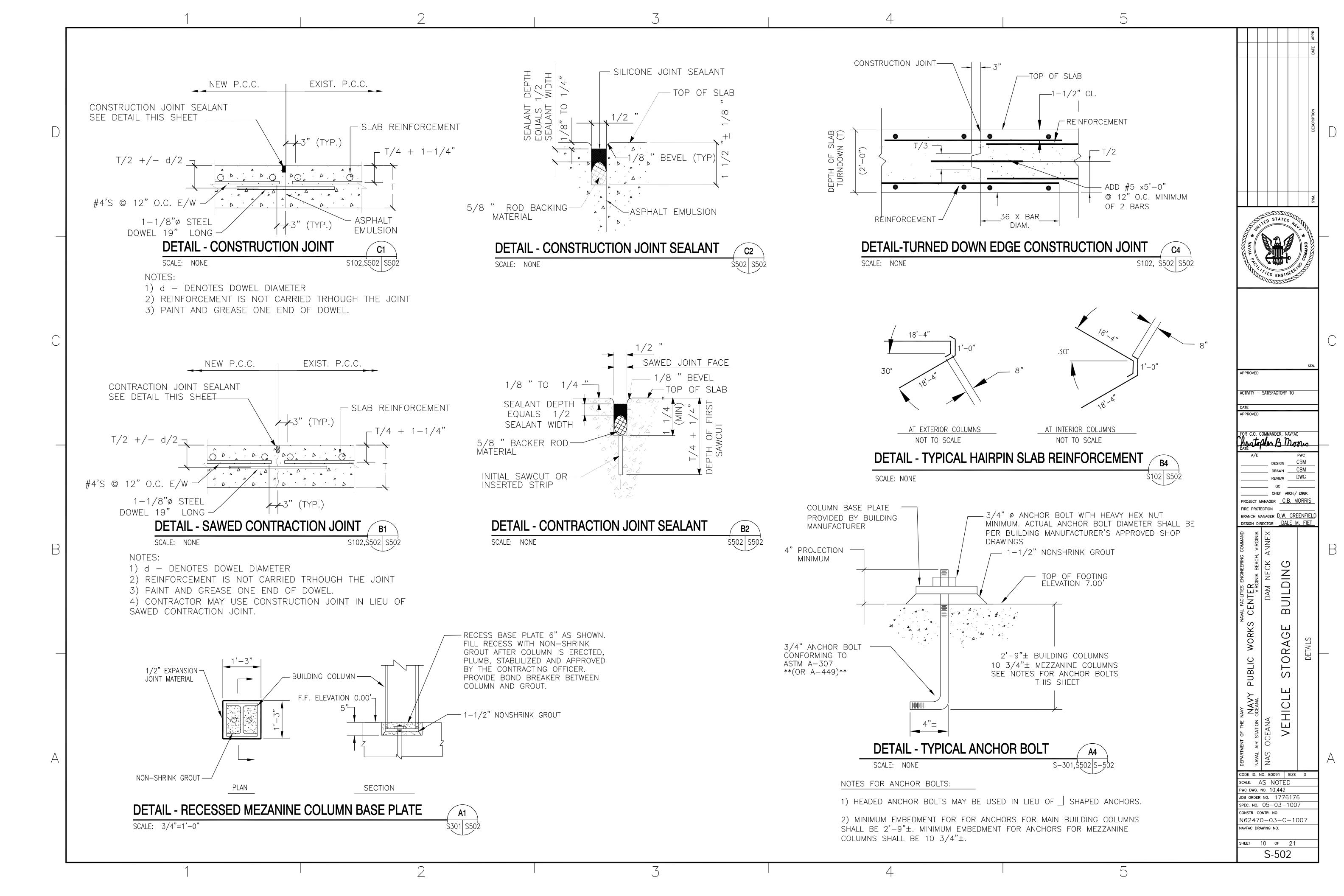
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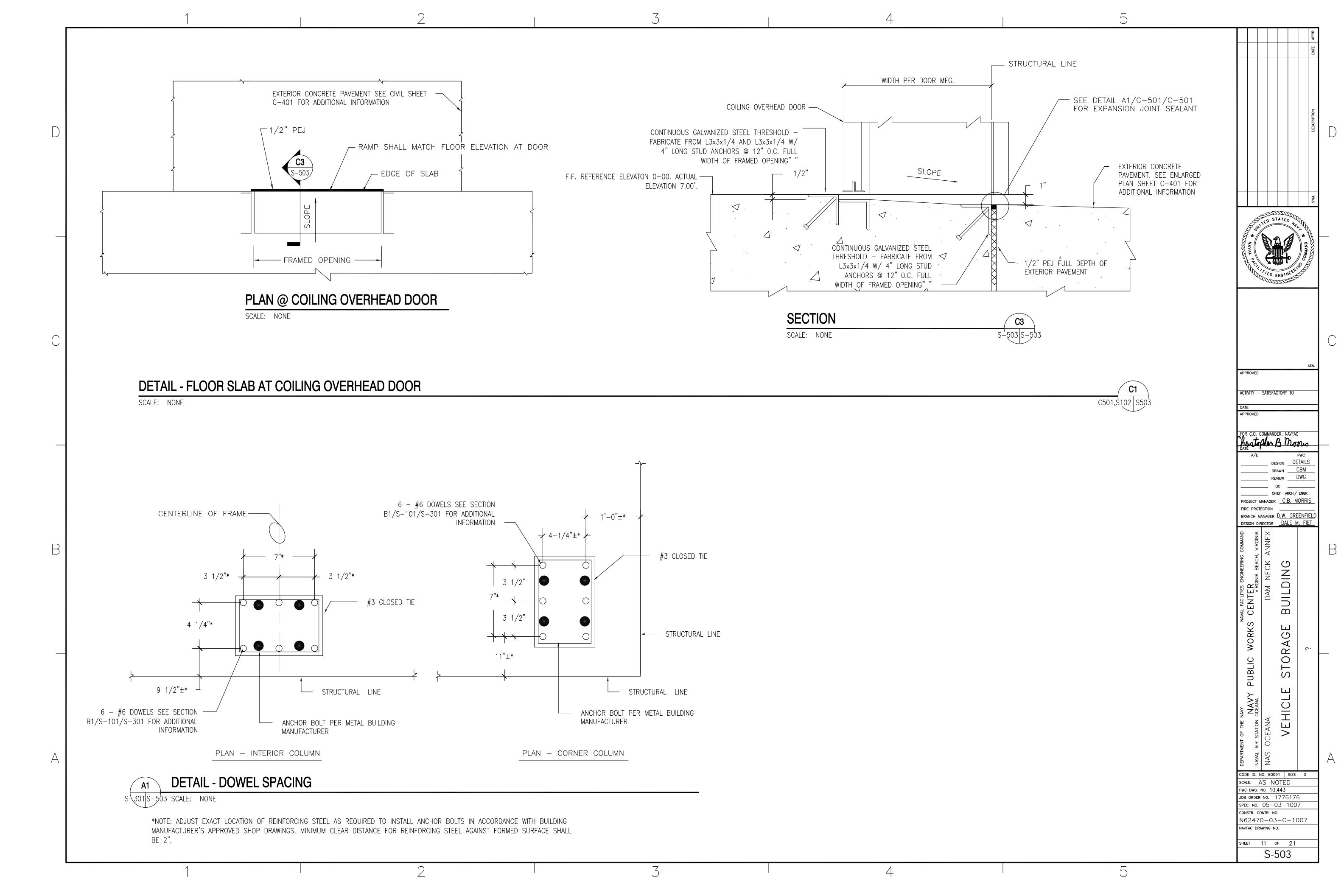


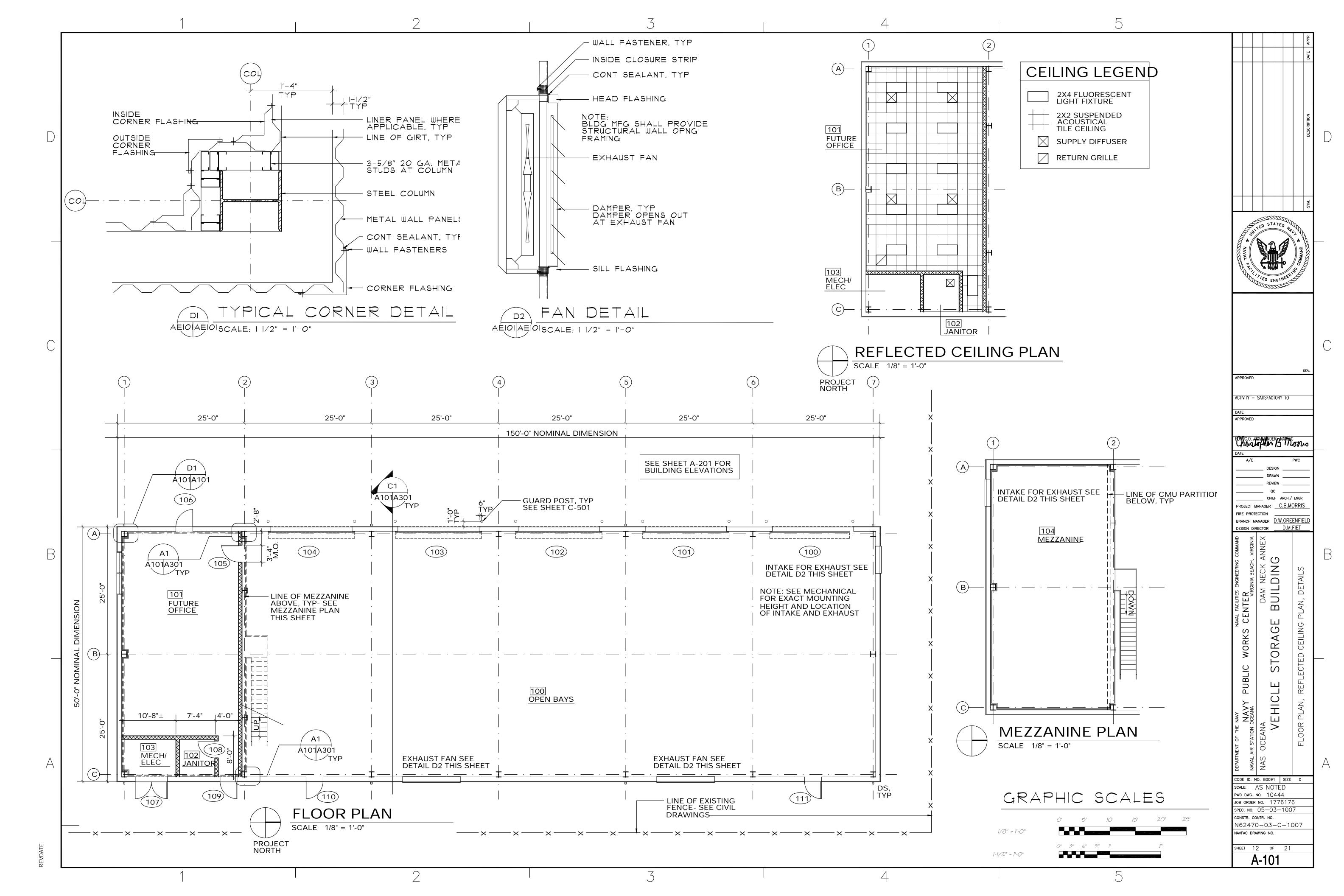


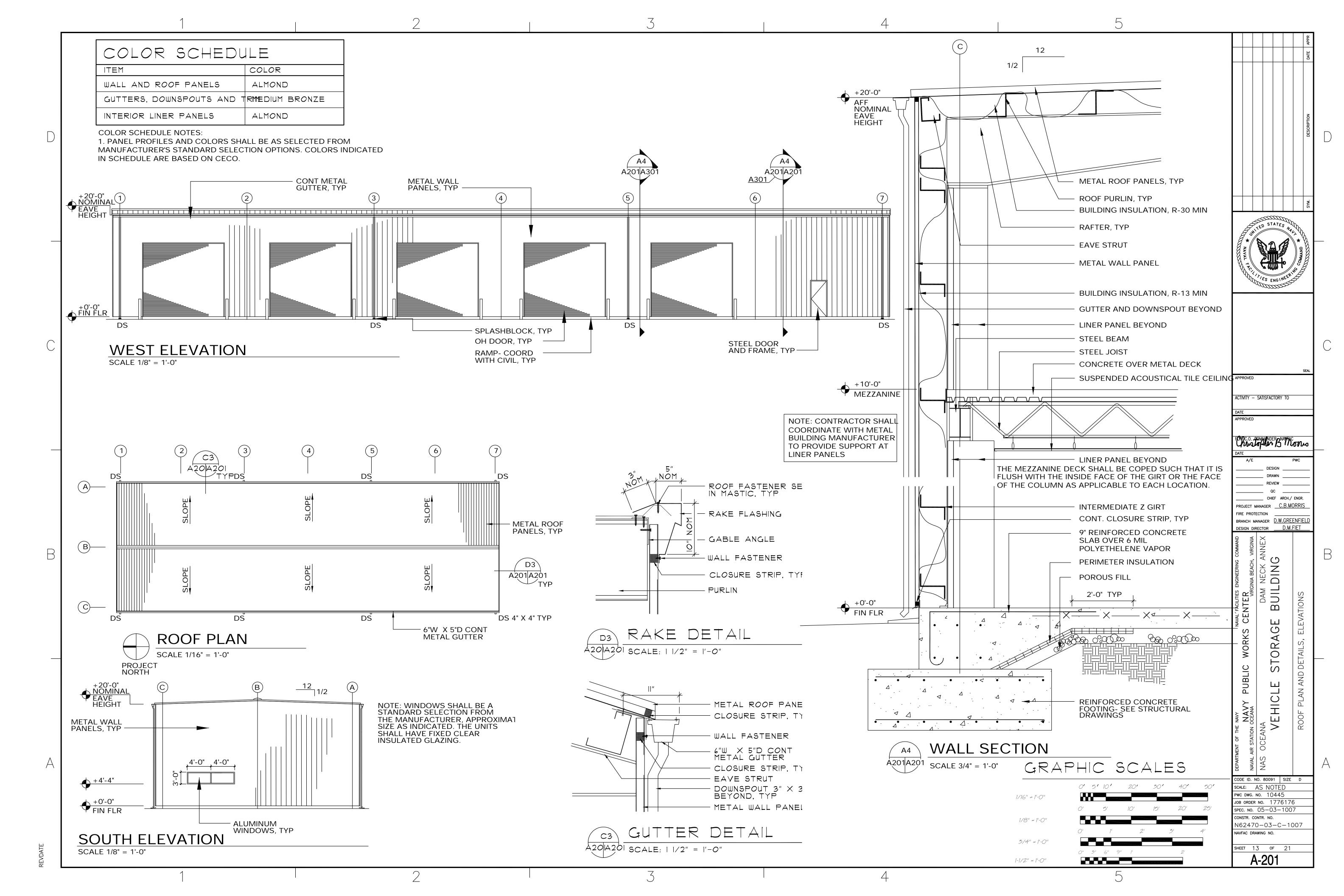


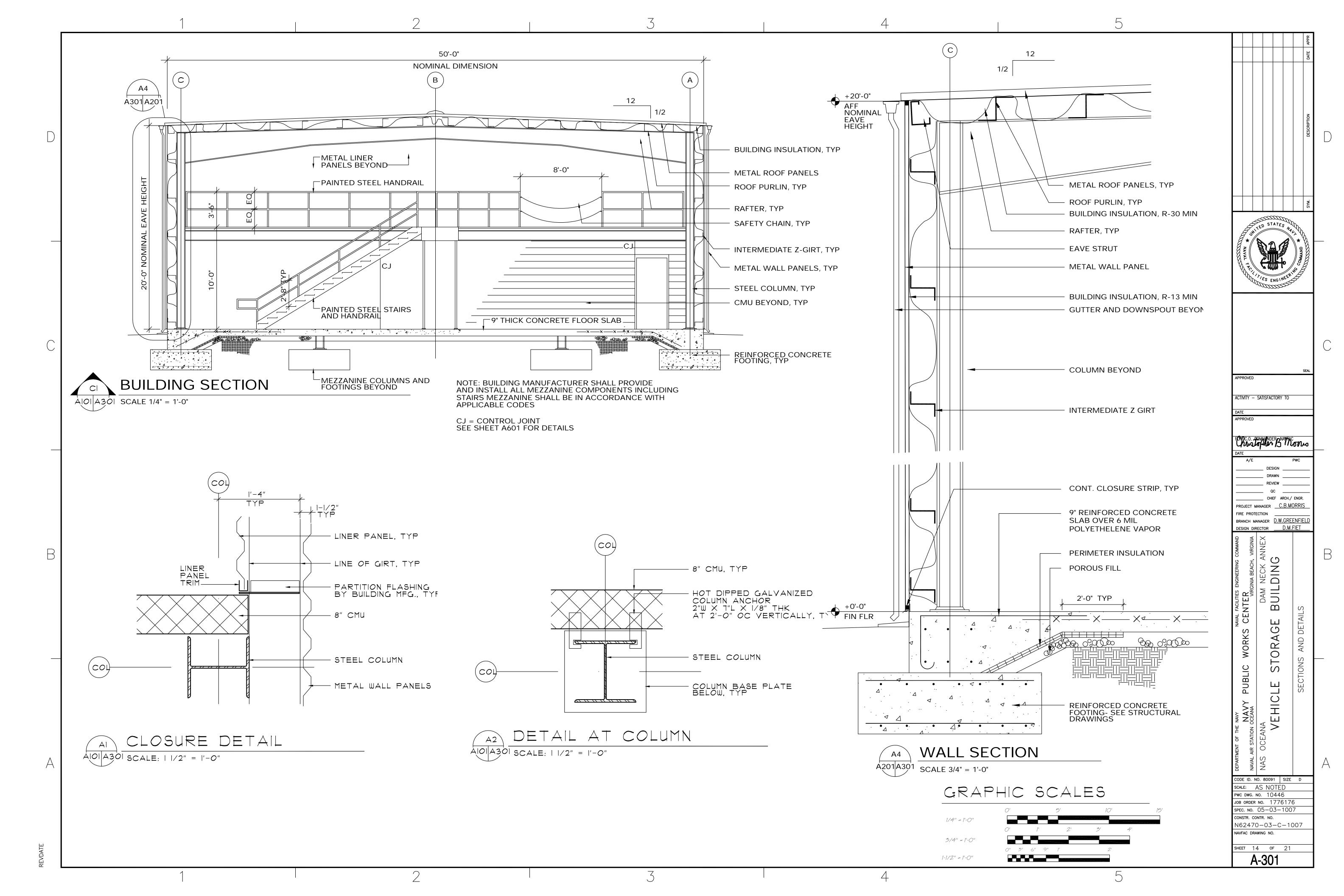


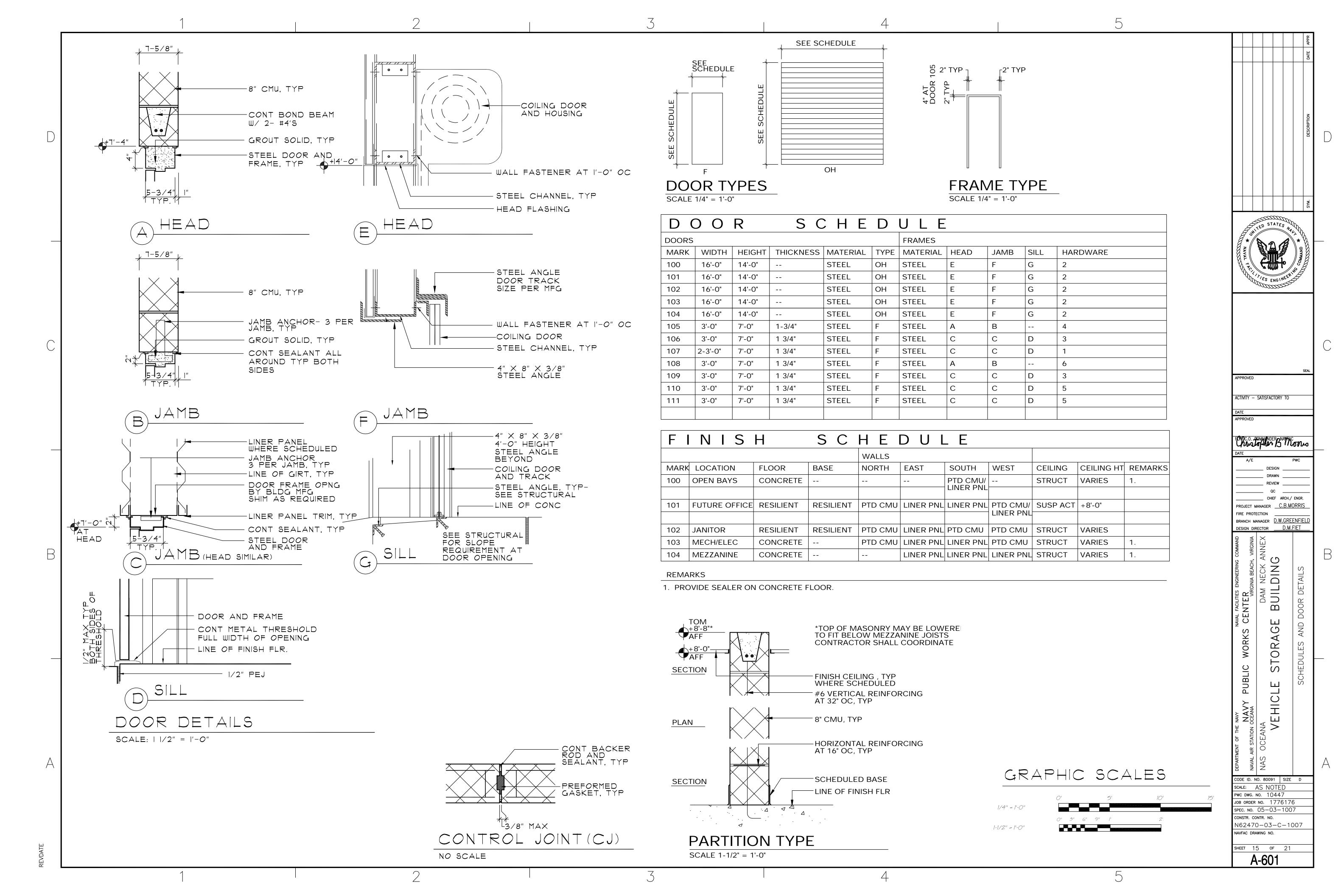


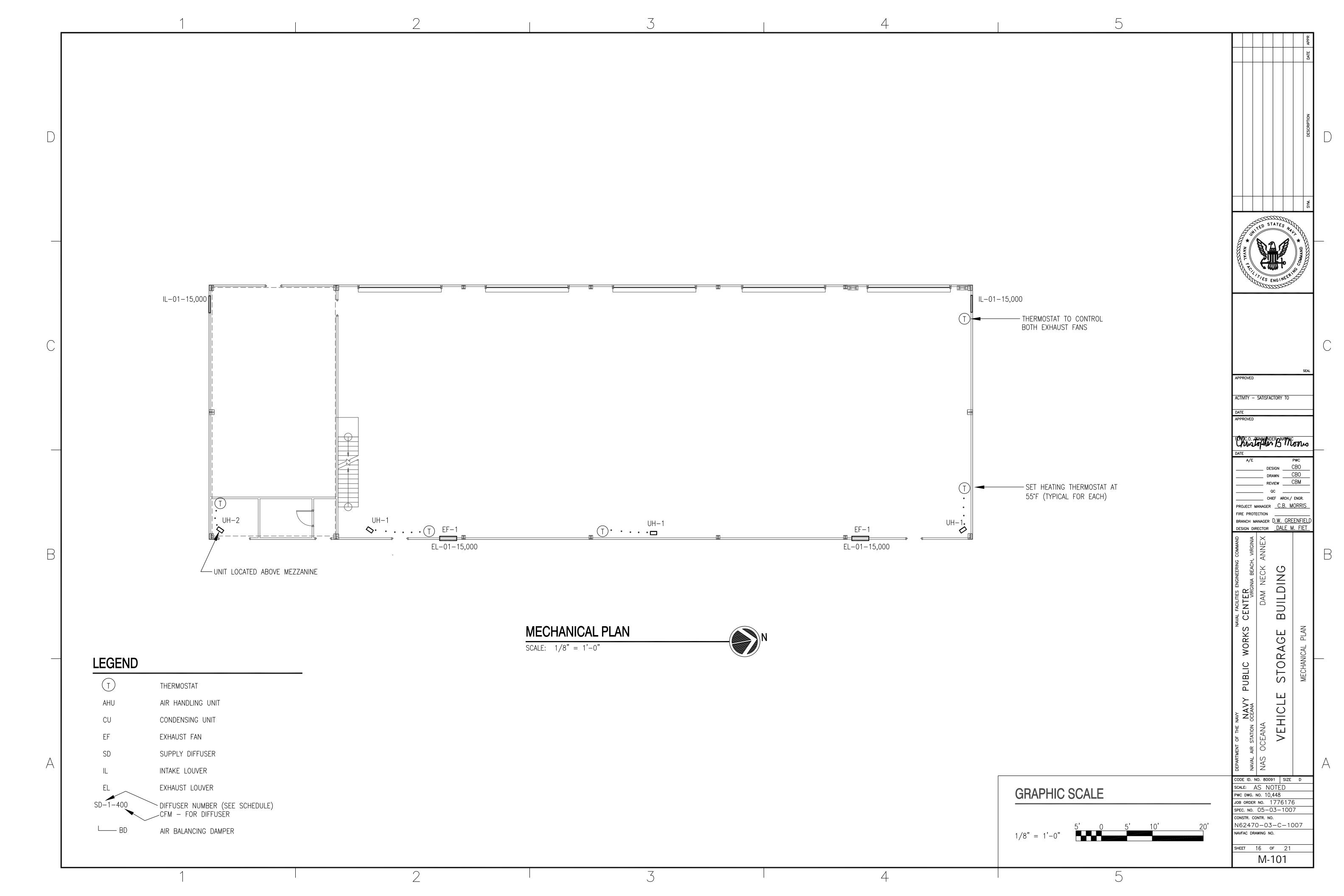


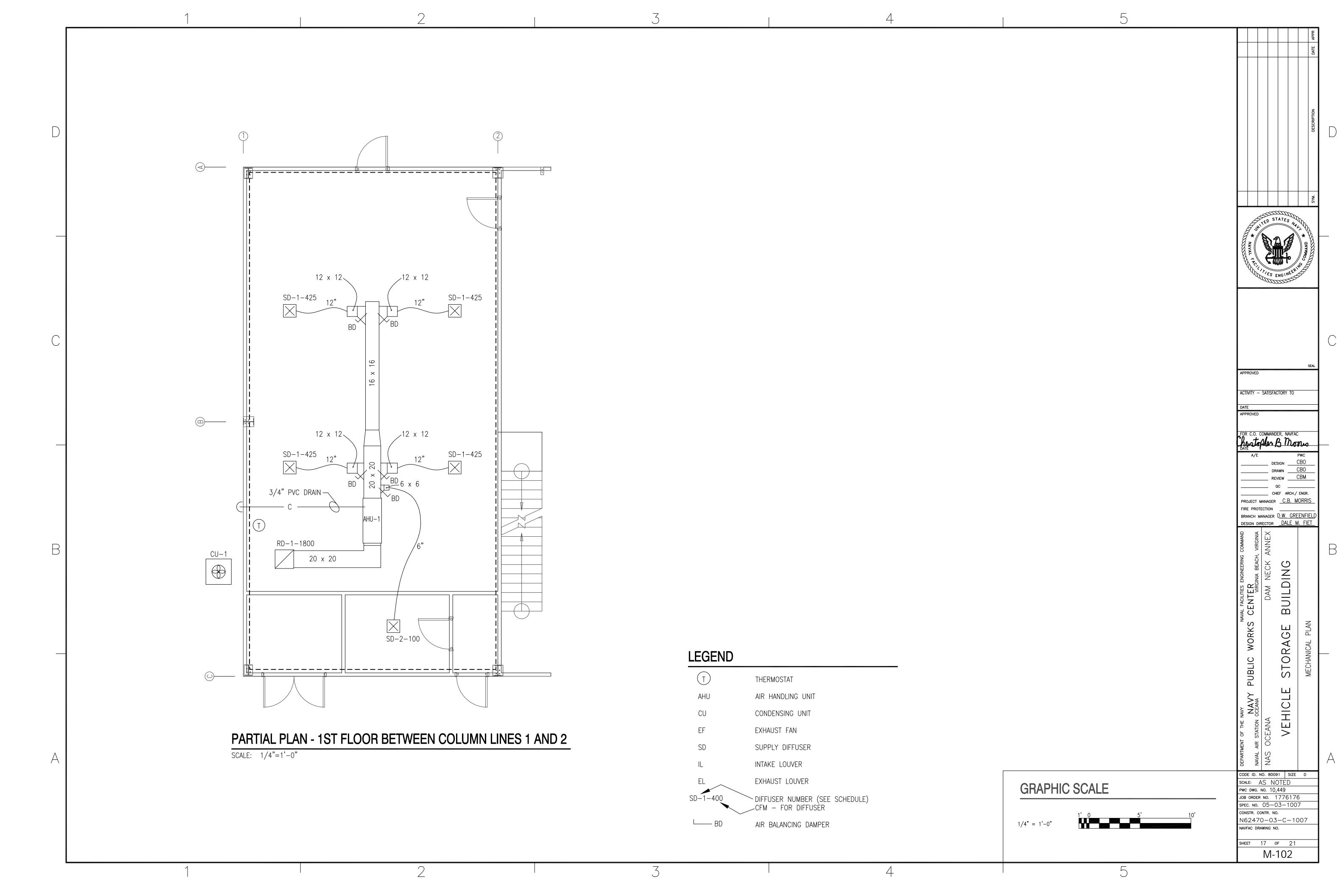












- DIFFUSER SCHEDULE -						
GRILL NUMBER	TYPE	NECK SIZE	STYLE	THROW	EQUAL TO:	AIRFLOW RANGE (CFM)
SD-1	15"x15" T-BAR LAY IN - SUPPLY	12" ROUND	4-WAY, W/OBD	8'	KRUEGER – #1124 – FRAME 24	425
SD-2	6"x6" T-BAR LAY IN - SUPPLY	6" ROUND	4-WAY, W/OBD	8'	KRUEGER – #1124 – FRAME 24	100
RD-1	22"x22" T-BAR LAY IN - RETURN	24"x24" - TRANSITION REQUIRED			KRUEGER – #1196 – FRAME 24	1,800
IL-1	48"x48" INTAKE CONTROL DAMPER		MOTORIZED		RUSKIN	15,000
EL-1	48"x48" EXHAUST CONTROL DAMPER		MOTORIZED		RUSKIN	15,000

NEW CEILING DIFFUSER NOISE LEVELS SHALL NOT EXCEED 35db. NECK VELOCITIES SHALL NOT EXCEED 600 FPM. TOTAL DIFFUSER STATIC PRESSURE SHALL NOT EXCEED 0.1" S.P. NEW CONTROL & BACKDRAFT DAMPER VELOCITIES SHALL

NOT EXCEED 1,500 FPM OR MANUFACTURER'S RATINGS.

	HEAT PUMP AIR HANDLER						
		SYMBOL	AHU-1				
		CFM	1,800				
F		STATIC PRESSURE	0.30"				
		VOLTAGE/PHASE	230/1				
<b>'</b>	`	HORSEPOWER	3/4				
N		TYPE	CENTRIF.				
		DRIVE	DIRECT				
FIL		FILTER	INTERNAL				
		HORIZONTAL UNI	Г				
	DX COOLING						
$  \cup    $		TAL BTUH	40,000				
		NSIBLE BTUH	36,000				
	REI	FRIGERANT	R-22				
		DX HEA	TING				
	TOTAL BTUH 36,000						

ELEC SUPP

HEAT 230-1P

DRY BULB °F

WET BULB °F

EQUAL TO: CARRIER

APPROX. DIMENSIONS:

MODEL # : F4AN-048

ENTERING AIR SUMMER/WINTER

53"L x 22"W x 22"H

76/70

67/-

10KW

HEAT PUMP CONDENSING UNIT				
SYMBOL	CU-1			
TOTAL BTUH	40,000			
REFRIGERANT	R-22			
VOLTAGE/PHASE	230/1			
AMBIENT TEMPERATURE	95 F			
EQUAL TO: CARRIER  MODEL # 38-AYC-048  APPROX. DIMENSIONS:  30"L x 30"W x 33"H				

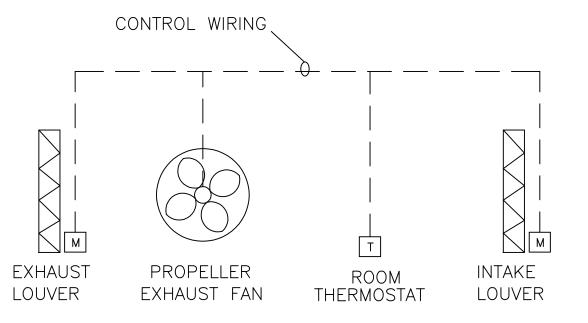
- ELECTRIC UNIT HEATER -						
SYMBOL HEATING CAPACITY VOLTAGE TYPE FAN TYPE						
UH-1	10	240/1	FORCED AIR	PROPELLER		
UH-2	3	240/1	FORCED AIR	PROPELLER		

- SIDEWALL PROPELLER EXHAUST FAN -							
SYMBOL	EXHAUST CFM	STATIC PRESSURE	HP	VOLTAGE / PHASE	DRIVE TYPE	FAN TYPE	EQUAL TO:
EF-1	15,000	0.250"	1-1/2	120/1	BELT	PROPELLER	GREENHECK - MODEL # SPBE

NEW SIDEWALL BELT DRIVEN PROPELLER EXHAUST FAN SHALL BE LOCATED WHERE SHOWN. PROVIDE MOTOR GUARD AROUND FAN AND DAMPER WITH WALL MOUNT HOUSING. EXHAUST FAN SHALL OPERATE AUTOMATICALLY FROM WALL MOUNTED THERMOSTAT. INTERLOCK FAN OPERATION WITH MOTORIZED INTAKE (IL-1) & EXHAUST (EL-1). DAMPERS SHALL OPEN WHEN FAN IS ON, CLOSE WHÈN FÁN IS OFF.

## **NOTES**

- 1- ALL EQUIPMENT SHALL BE INSTALLED WHERE SHOWN UNLESS OTHERWISE STATED. EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL EQUIPMENT SHALL BE READY TO OPERATE AS OUTLINED.
- 2- NEW HEAT PUMP SPLIT SYSTEM SHALL BE INSTALLED WHERE SHOWN. LOCATE NEW AIR COOLED CONDENSING UNITS ON CONCRETE EQUIPMENT PADS WHERE SHOWN. NEW AIR HANDLER SHALL HAVE DISPOSABLE INTERNAL FILTERS. RUN NEW PVC CONDENSATE DRAIN PIPING TO GROUND OUTSIDE. CONCEAL PIPING INSIDE WALL. PROVIDE P-TRAP IN DRAIN LINE. PIPE SIZE AS RECOMMENDED BY THE MANUFACTURER. CONCEAL REFRIGERANT PIPING INSIDE WALL FROM AIR HANDLER TO OUTDOOR CONDENSING UNIT. INSULATE ALL REFRIGERANT PIPING. DO NOT EXCEED REFRIGERANT PIPING LENGTHS OR INSTALL SMALLER PIPING THAN RECOMMENDED BY THE MANUFACTURER. PROVIDE NEW PROGRAMMABLE THERMOSTAT FOR HEAT PUMP USE. PROVIDE TIME GUARD CONTROLS ON UNIT TO PREVENT RESTARTING THE COMPRESSOR BEFORE 5 MINS AFTER SHUTDOWN. UNIT SHALL HAVE INTERNAL DISPOSABLE FILTERS.
- 3- ALL NEW DUCTWORK SHALL BE INSTALLED AS RECOMMENDED BY SMACNA. GALVANIZED STEEL DUCTWORK SHALL BE USED FOR ALL RIGID DUCT. EXPOSED DUCTWORK FOR FURNACE DOES NOT REQUIRE INSULATION. DUCTWORK SHALL RUN CLOSE TO CEILING BELOW ROOF BEAMS.
- 4- AFTER HVAC SYSTEM INSTALLATION, BALANCE THE SYSTEM STARTING WITH BRANCHES LOCATED NEAR THE AHU AND WORK TOWARD THE LAST BRANCH AND DIFFUSER. OPEN ALL DAMPERS FULLY BEFORE THE FIRST ADJUSTMENT. CHECK ALL MEASUREMENTS AGAIN AND RE-BALANCE SYSTEM UNTIL AIR-FLOWS ARE WITHIN AN ACCEPTABLE RANGE.
- 5- ALL HVAC EQUIPMENT SHALL BE LOCATED TO ALLOW MINIMUM CLEARANCE ON ALL SIDES FOR ACCESS AND PROPER AIR FLOW WHERE REQUIRED AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER. IF PROPER CLEARANCE CANNOT BE MAINTAINED, CONTACT THE CONTRACTING OFFICER BEFORE INSTALLING EQUIPMENT.
- 6- THERMOSTATS SHALL BE LOCATED IN THE ROOMS INDICATED. INSTALL AT LEAST 1'-0" FROM DOOR FRAMES OR CORNERS OF WALLS, AND AT 48" ABOVE FINISHED FLOOR.



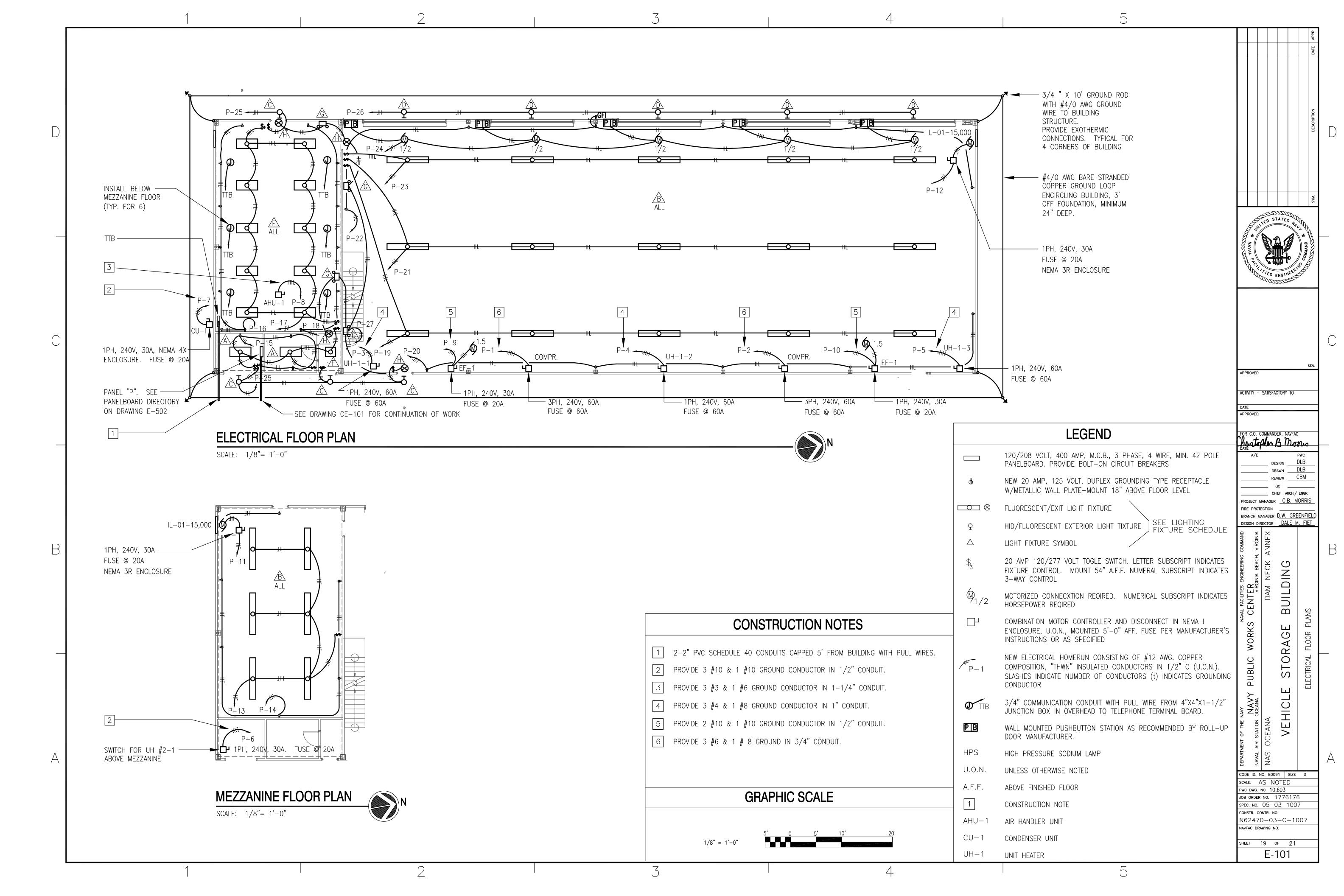
# PROPELLER EXHAUST FAN CONTROLS

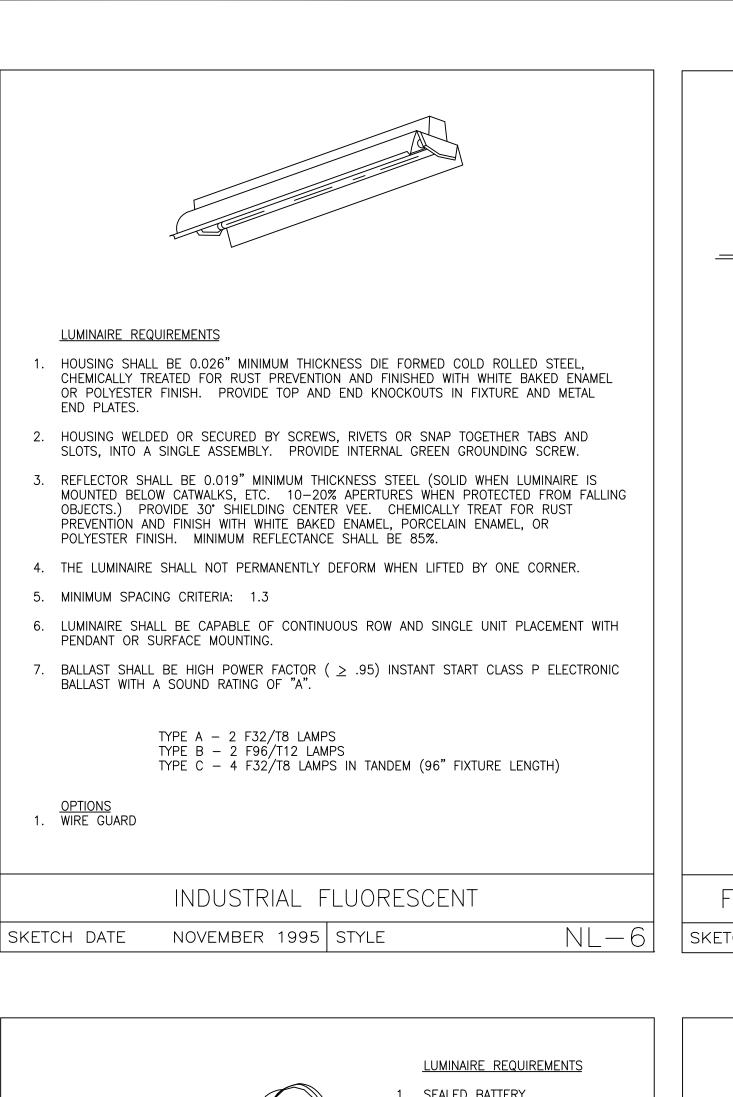
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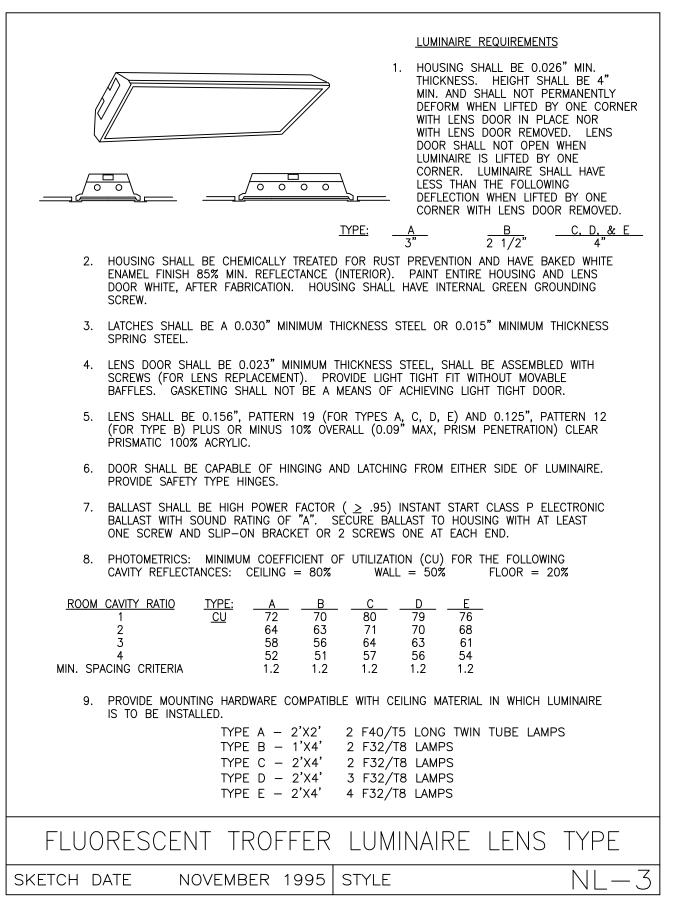
ACTIVITY - SATISFACTORY TO FOR C.O. COMMANDER, NAVFAC histopher B Mons \_\_\_ CHIEF ARCH./ ENGR. PROJECT MANAGER <u>C.B. MORRIS</u> BRANCH MANAGER D.W. GREENFIEL DESIGN DIRECTOR <u>DALE M. FIET</u> BUILDING ORA CODE ID. NO. 80091 SIZE D SCALE: AS NOTED PWC DWG. NO. 10,450 JOB ORDER NO. 1776176 SPEC. NO. 05-03-1007 ONSTR. CONTR. NO. N62470-03-C-1007 NAVFAC DRAWING NO.

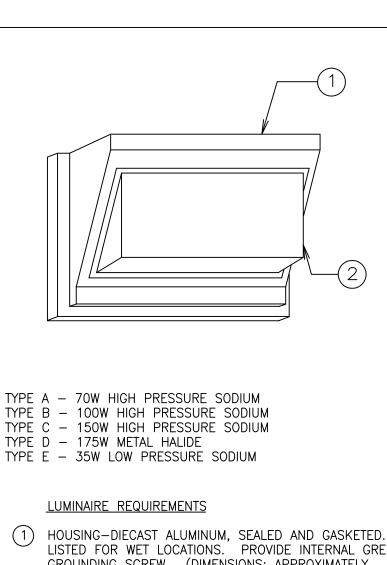
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M-601









(1) HOUSING-DIECAST ALUMINUM, SEALED AND GASKETED. UL LISTED FOR WET LOCATIONS. PROVIDE INTERNAL GREEN GROUNDING SCREW. (DIMENSIONS: APPROXIMATELY 16"L X 10"H X 11"D)

(2) REFRACTOR-BOROSILICATE PRISMATIC GLASS. PROVIDE ALUMINUM REFLECTOR.

3. BALLAST-HIGH POWER FACTOR ( $\geq$  .9) ENCASED AND POTTED MULTI-VOLTAGE.

4. FINISH-DARK BRONZE, <u>UNLESS OTHERWISE NOTED.</u>

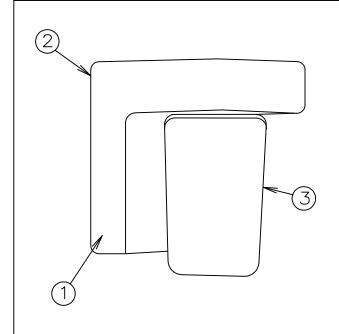
5. LAMP SOCKET SHALL BE ADJUSTABLE.

6. PROVIDE INTEGRAL PHOTOCELL WHEN INDICATED.

EXTERIOR COMMERCIAL WALL MOUNT H.I.D.

NL-25SKETCH DATE NOVEMBER 1995 STYLE

N/A



<u>OPTIONS</u> BLACK FINISH INTEGRAL PHOTOCELL AMBER LENS 4. LOCKING SCREW

### **LUMINAIRE REQUIREMENTS**

- 1) HOUSING SHALL BE ULTRA-VIOLET RESISTANT POLYCARBONATE DARK BRONZE <u>UNLESS INDICATED OTHERWISE.</u> APPROX. 10"H X 7"W X 9"
- (2) PROVIDE WITH ALUMINUM OR POLYCARBONATE BACK PLATE.
- PROVIDE <u>ACRYLIC</u> OR <u>POLYCARBONATE</u> ULTRA-VIOLET RESISTANT <u>PRISMATIC</u> OR <u>DIFFUSE</u> LENS <u>AS INDICATED.</u>
- 4. PROVIDE HIGH POWER FACTOR ( $\geq$  .9) ELECTROMAGNETIC BALLAST.
- 5. PROVIDE INTERNAL GREEN GROUNDING SCREW.
- 6. PROVIDE UL WET LABEL.
- 7. PROVIDE COLD WEATHER BALLAST WHEN INDICATED.

### LAMP OPTIONS

TYPE A: 1-F7/T4 TWIN TUBE COMPACT FLUORESCENT

TYPE B: 1-F13/T4 TWIN TUBE COMPACT FLUORESCENT

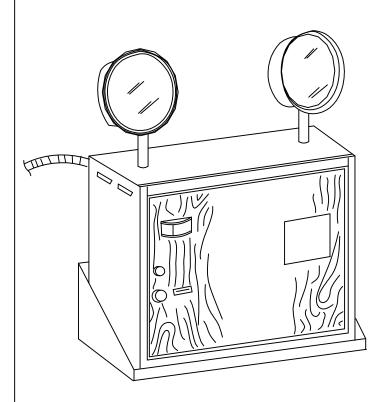
TYPE C: 2-F7/T4 TWIN TUBE COMPACT FLUORESCENT

TYPE D: 2-F13/T4 TWIN TUBE COMPACT FLUORESCENT

TYPE E: 1-18W LOW PRESSURE SODIUM

EXTERIOR COMPACT FLUORESCENT AND LOW PRESSURE SODIUM-WALL MOUNT

NL-26SKETCH DATE NOVEMBER 1995 STYLE

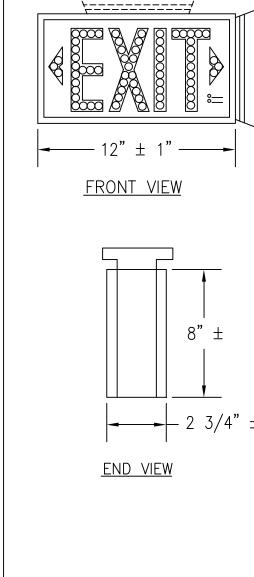


SEALED BATTERY, SPECIFICALLY DESIGN FOR EMERGENCY LIGHTING, SOLID STATE FULLY AUTOMATIC -THREE RATE CHARGER FOR NICKEL CADMIUM BATTERY AND TWO RATE HIGH/LOW CHARGER FOR LEAD CALCIUM OR LEAD ACID SEALED BATTERIES.

MINIMUM 0.032" THICK STEEL HOUSING WITH BAKED ENAMEL PAINTED FINISH (BROWN OR BEIGE), OR NONMETALLIC PLASTIC HOUSING.

- 3. TEST SWITCH
- 4. "AC ON" PILOT LIGHT.
- AUTOMATIC OVERLOAD PROTECTION - FUSE OR CIRCUIT BREAKER.
- 6. HEADS SHALL BE FULLY ADJUSTABLE VERTICALLY AND HORIZONTALLY.
- 7. SEALED BEAM HALOGEN PAR-36 LAMPS, MINIMUM 12 WATT OR 20 WATT AS INDICATED.
- 8. INPUT VOLTAGE AS INDICATED.
- VOLTMETER.
- 10. 3/C #16, SO CORD SET (HARD WIRE TO CIRCUIT)
- 11. PROVIDE MINIMUM 0.032" THICK STEEL WALL MOUNTING SHELF, OR MOUNTING BRACKETS OR HOLES IN HOUSING FOR MOUNTING UNIT ON WALL.
- 12. LOW VOLTAGE, DEEP DISCHARGE DISCONNECT.
- 13. PROVIDE INTERNAL GREEN GROUNDING SCREW.

	EMERGENCY L	ighting unit	
SKETCH DATE	SEPTEMBER 1997	STYLE	NL-51



# **LUMINAIRE REQUIREMENTS**

1. ALUMINUM, STEEL, THERMOPLASTIC OR POLYCARBONATE HOUSING.

2. BRUSHED ALUMINUM, THERMOPLASTIC OR STEEL STENCIL WITH LETTERS 6 INCHES TALL AND 3/4" WIDE STROKES AND PUNCH-OUT FACE, FOR LED'S OR INTERNAL LED ILLUMINATION.

RED ILLUMINATION PROVIDED BY LIGHT EMITTING DIODES (LED). APPROXIMATELY 60 LED'S PER FACE. (THIS QUANTITY DOES NOT APPLY TO INTERNALLY ILLUMINATED SIGNS.)

4. CLEAR PROTECTIVE NON-BREAKABLE LENS TO PROTECT LED'S. (NOT REQUIRED FOR INTERNALLY ILLUMINATED SIGNS.)

5. PROVIDE POWER FAILURE, BROWN OUT PROTECTION AND SURGE PROTECTION.

6. PROVIDE NI-CAD BATTERY POWER AND SOLID STATE TYPE CHARGER. 7. PROVIDE UNIVERSAL ARROWS AND BLANK

8. PROVIDE SINGLE OR DOUBLE FACE AS

INDICATED. 9. PROVIDE UNIVERSAL MOUNTING.

OFF PLATES.

10. UNITS MOUNTED EXPOSED TO THE ELEMENTS OR IN CLASSIFIED AREAS SHALL HAVE UL LABEL <u>AS INDICATED.</u>

11. PROVIDE INTERNAL GREEN GROUNDING SCREW.

12. PROVIDE TEST BUTTON IN BOTTOM OF HOUSING.

13. PROVIDE INDICATOR LIGHTS IN FACE TO 1. UNIT NOT AVAILABLE WITH INDICATE WHEN UNIT IS ON NORMAL WET LABEL. POWER OR ON BATTERY POWER.

LABEL. FINISH, EXCEPT AS INDICATED OTHERWISE.

# LIGHT EMITTING DIODE EXIT SIGN

14. HOUSING SHALL HAVE A MATTE BLACK

NL-61JUNE 2002 STYLE SKETCH DATE

FIXTURE SYMBOL	STYLE & TYPE — SEE NAVFAC SKETCHES OR DETAILS ON PLANS	NUMBER & TYPE OF LAMPS	VOLTS	MOUNTING	REMARKS
Â	NL-6, TYPE A	(2) F32 WATT/T8, RAPID START	120V	PENDANT	CEILING WITH WIRE GUARD
B	NL-6 TYPE B	(2) LAMP, F96CW/T12	120V	PENDANT	CEILING WITH WIRE GUARD
<u>C</u>	NL-26, TYPE D	(2) 13 WATT, COMPACT FLUOR	120V	SURFACE	WALL-P.E.CELL
	NL-25 TYPE B	(1) 100 WATT, H. P. S.	120V	SURFACE	WALLPACK- P.E.CELL
E	NL-3, TYPE D	(3) 32 WATT, RAPID START FLUOR	120V	TROFFER	CEILING
F	NL-3, TYPE A	(2) 32 WATT, RAPID START FLUOR	120V	TROFFER	CEILING
G	NL-51	(2) LAMP, PAR 36, 20 WATT	120V	SURFACE	WALL
	NL-61	LIGHT EMITTING DIODES	120V	SURFACE	WALL
	N/A				

LIGHTING FIXTURE SCHEDULE

APPROVED ACTIVITY - SATISFACTORY TO OR C.O. COMMANDER, NAVFAC hystopher B Mons REVIEW \_\_\_\_CBM \_\_\_\_ CHIEF ARCH./ ENGR. PROJECT MANAGER C.B. MORRIS BRANCH MANAGER D.W. GREENFIEL DESIGN DIRECTOR <u>DALE M. FIET</u> UILDIN CENTER
VIRGI  $\Box$  $\simeq$  $\bigcirc$ PUB ш CODE ID. NO. 80091 SIZE D CALE: AS NOTED PWC DWG. NO. 10,604 JOB ORDER NO. 1776176 SPEC. NO. 05-03-1007ONSTR. CONTR. NO. N62470-03-C-1007 NAVFAC DRAWING NO. SHEET 20 OF 21 E-501

2. UNIT IS AVAILABLE WITH DAMP

